Annotated Checklist of the Mammals of Georgia
Joshua Laerm, Lloyd E. Logan, M. Elizabeth McGhee
Museum of Natural History and Department of Zoology,
University of Georgia, Athens, Georgia 30602

AND

HANS N. NEUHAUSER

The Georgia Conservancy, Savannah, Georgia 31405

ABSTRACT.— Previous accounts listed 79 species of mammals occurring in Georgia. Taxonomic changes and improved distributional records now allow listing of 90 species—74 non-marine—with 20 of them represented by more than one subspecies. Consequently, Georgia has 118 taxonomically distinct mammalian species and subspecies.

#### INTRODUCTION

Since publication of Mammals of Georgia (Golley 1962) there has been a considerable increase in knowledge concerning this group of vertebrates in the state. There have been, for example, several new state records (e.g., Wharton and White 1967), a number of taxonomic and/or nomenclatural changes (e.g., Williams and Genoways 1980), and some significant range extensions (Laerm et al. 1980). A review of Georgia's cetaceans (Neuhauser and Ruckdeschel 1978) provided a much needed update of the known ocurrences of marine mammals in Georgia's coastal waters. Recent regional studies (Wharton 1973; Neuhauser and Baker 1974; Laerm et al. 1980) provided useful information regarding the distribution and abundance of a number of species.

In general, the mammals of Georgia are poorly known. Many species are extremely rare, some are known only from very old historical data, and there are a number of taxonomic problems with others. Although we are preparing a book on the mammals of Georgia, its completion will require several more years of work. We provide here an updated and comprehensive annotated checklist of mammal species and subspecies known to occur in Georgia and its coastal waters. For each species and subspecies, we include distributional data and brief comments regarding their taxonomic and conservation status.

# MATERIALS AND METHODS

Scientific and common names are those used by Jones et al. (1979). Distributional ranges are based on voucher specimens in a number of museums, published accounts, our observations, and University of

Georgia Museum of Natural History records. Subspecific designations are those of Hall (1981), unless otherwise noted. Data were obtained from mammal collections in the following institutions: Academy of Natural Sciences of Philadelphia; American Museum of Natural History; Auburn University; Carnegie Museum of Natural History; Charleston Museum of Natural History; Cornell University; Delaware Museum of Natural History; Field Museum of Natural History; Florida State Museum; Museum of Comparative Zoology, Harvard University; Museum of Texas Tech University; National Museum of Natural History; University of Illinois Museum of Natural History; University of Kansas Museum of Natural History; and University of Michigan Museum of Zoology.

## SPECIES LIST

Didelphis virginiana (Linnaeus), Virginia Opossum. Statewide; common in nearly all habitats, including most urban areas. Two subspecies are recognized (Gardner 1973; Hall 1981): Didelphis virginiana virginiana Kerr occurs from the Upper Coastal Plain southward, and is replaced northward by D. v. pigra Bangs.

Sorex cinereus cinereus Kerr, Masked Shrew. A rare species that reaches the southern limit of its range in northern Georgia. Within the state it is known from only three specimens, taken in mesic forest habitats of Towns County (Wharton 1968a).

Sorex longirostris longirostris Bachman, Southeastern Shrew. Statewide but uncommon. The species generally inhabits mesic woodland and open field habitats (Golley 1962).

Sorex fumeus fumeus Miller, Smoky Shrew. An uncommon shrew that reaches the southeastern limit of its range in northeast Georgia, where it is known from Fannin, Murray, Rabun, Towns, and Union counties. It is most commonly found in deciduous forest leaf litter (Hamilton 1940).

Microsorex hoyi winnemana Preble, Pygmy Shrew. This rare shrew, the smallest North American mammal, reaches the southern limit of its range in northeast Georgia (Long 1974; Wharton 1968a), where it occurs in mesic woodlands of Towns County. Long (1972, 1974) identified the species occurring in Georgia as M. thompsoni, but we follow van Zyll de Jong (1976) and Hall (1981).

Blarina brevicauda churchi Bole and Moulthrop, Short-tailed Shrew. This common shrew occurs in mesic habitats in the northern half of the state, exclusive of the extreme northwest, south to the Fall Line (French 1982).

Blarina carolinensis carolinensis (Bachman), Southern Short-tailed Shrew. A common inhabitant of mesic habitats in the Coastal Plain,

south of the Fall Line. This shrew also occurs in the extreme northwestern part of the state (French 1982).

Cryptotis parva Say, Least Shrew. An uncommon shrew of field habitats throughout the state, which is most abundant on the Coastal Plain (Golley 1962). Two subspecies are recognized in Georgia (Hall 1981): Cryptotis parva parva (Say) is statewide except in the extreme south, and C. p. floridana (Merriam) is known only from Thomas, Grady, Camden and McIntosh counties (Golley 1962; Neuhauser 1972).

Scalopus aquaticus (Linnaeus), Eastern Mole. A common fossorial species inhabiting a variety of habitats statewide. Three subspecies are recognized in Georgia (Yates and Schmidly 1978; Hall 1981): Scalopus aquaticus aquaticus (Linnaeus) is known only from the extreme northeast; S. a. australis (Chapman) occurs in the southeastern third of the state; and S. a. howelli (Jackson) occurs throughout the northwestern two-thirds of the state.

Condylura cristata parva Paradiso, Star-nosed Mole. A very rare, largely aquatic mole that reaches the southern limit of its range in Georgia. It is known only from Charlton, Chatham, Clinch, Effingham, Jackson, and Union counties (Peterson and Yates 1980).

Myotis lucifugus lucifugus (LeConte), Little Brown Myotis. This bat is known only from Bartow, Dade, Polk, Towns, and Walker counties. Other previously published localities (Golley 1962; Hall and Kelson 1959; Hall 1981) were based on misidentifications (Davis and Rippy 1968). The type locality, "Georgia, probably the LeConte Plantation, near Riceboro, Liberty County . . ." (Miller and Allen 1928) is questionable because there are no specimens with data to suggest that M. lucifugus occurs in the Coastal Plain (Davis and Rippy 1968). This uncommon species inhabits buildings and caves.

Myotis austroriparius (Rhoads), Southeastern Myotis. Statewide, but not known from the southeastern tier of counties adjoining South Carolina. The species is common in the southern part of the state and is often confused with M. lucifugus (Davis and Rippy 1968). It inhabits trees, caves, and buildings (Hall and Kelson 1959).

Myotis grisescens Howell, Gray Myotis. Known in Georgia from only two localities, in Polk and Clarke counties (Baker 1965). These specimens were probably transients, since the primary range of this cave dweller is northwest of Georgia. The species is considered endangered under State and Federal regulations (Odom et al. 1977).

Myotis keenii septentrionalis (Trouessart), Keen's Myotis. This solitary bat is rare in Georgia, where most records are from the northwestern mountains. There it inhabits caves (Fitch and Schump 1979). Van Zyll de Jong (1979) suggested that the nominal subspecies septentrionalis is a separate species from M. keenii. We follow Hall (1981) and Jones

et al. (1979) in recognizing M. k. septentrionalis.

Myotis sodalis Miller and Allen, Indiana Myotis. This species, considered endangered under State and Federal regulations (Odom et al. 1977), is known in Georgia from only a single limestone cave in Dade County.

Myotis leibii (Audubon and Bachman), Small-footed Myotis. This rare, solitary bat reaches the southeastern limit of its range in north Georgia. Only three specimens from two localities in Dade and Union counties are known (Baker 1965). It inhabits caves, trees, and buildings.

Lasionycteris noctivagans (LeConte), Silver-haired Bat. This migratory tree dweller is fairly common statewide except in the lower Coastal Plain.

Pipistrellus subflavus (Cuvier), Eastern Pipistrelle. The pipistrelle is common in caves and trees statewide. Two subspecies are recognized in Georgia (Hall 1981): Pipistrellus subflavus subflavus (Cuvier) is statewide except in the extreme southeastern Coastal Plain, where it is replaced by P. s. floridanus (Davis).

Eptesicus fuscus fuscus (Palisot de Beauvois), Big Brown Bat. Common statewide in attics of rural and urban homes as well as in outbuildings. The extreme southeastern counties may represent a region of intergradation between E. f. fuscus and E. f. osceola Rhoads, which occurs in Florida.

Lasiurus borealis borealis (Müller), Red Bat. A common migratory bat that roosts in trees statewide.

Lasiurus seminolus (Rhodes), Seminole Bat. Statewide, except for the mountain regions, and the most common bat in the Coastal Plain. It occurs most commonly in trees.

Lasiurus cinereus cinereus (Palisot de Beauvois), Hoary Bat. A large, uncommon tree dweller that is statewide during migration.

Lasiurus intermedius floridanus (Miller), Northern Yellow Bat. In Georgia, this rare tree dweller is known from less than a dozen specimens, all from the Coastal Plain.

Nycticeius humeralis humeralis (Rafinesque), Evening Bat. This common colonial bat, statewide in occurrence, is frequently found in attics of rural homes (Watkins 1972).

Plecotus rafinesquii Lesson, Rafinesque's Big-eared Bat. Although probably statewide in distribution, this bat is an uncommon inhabitant of man-made shelters or hollow trees (Jones 1977). Golley (1962), Jones (1977), and Hall (1981) indicated its range as statewide, but there are no collection records from the entire Piedmont Plateau and only one from the upper Coastal Plain (Grady County). It is apparently declining in numbers in south Georgia, perhaps due to habitat manipulation (Laerm et al. 1980). Two subspecies are recognized in Georgia (Jones 1977; Hall

1981): Plecotus rafinesquii rafinesquii Lesson occurs in the extreme northern tier of counties, and P. r. macrotis LeConte in the Coastal Plain.

Tadarida brasiliensis cynocephala (LeConte), Brazilian Free-tailed Bat. This uncommon bat occurs in the Piedmont and Coastal Plain of Georgia. It is found most commonly in buildings and under bridges, and colonies may be fairly large.

Dasypus novemcinctus mexicanus Peters, Nine-banded Armadillo. This species was first recorded in Georgia in the early 1950s (Fitch et al. 1952) and is now common in a variety of habitats in most of the lower Coastal Plain Sand Hills (Humphrey 1974). There are isolated records from the upper Coastal Plain as far north as Stewart and Bibb counties, just south of the Fall Line.

Sylvilagus palustris palustris (Bachman), Marsh Rabbit. A common inhabitant of lowlands, marshes, and flood plain habitats in the Coastal Plain.

Sylvilagus floridanus mallurus (Thomas). Eastern Cottontail. Statewide, and the most abundant rabbit in Georgia, where it occurs in a variety of habitats.

Sylvilagus transitionalis (Bangs), New England Cottontail. Known only from a few specimens collected in the Blue Ridge Province in 1908 and 1909. There are no recent records of its occurrence in the state, so it may be extirpated.

Sylvilagus aquaticus aquaticus (Bachman), Swamp Rabbit. Occurs north of the Fall Line in Georgia, but extends south into the upper Coastal Plain in the western counties. It is a common inhabitant of flood plains and creeks throughout its range.

Tamias striatus striatus (Linnaeus), Eastern Chipmunk. Found in the mountains, northern sections of the Piedmont, and scattered localities in western sections of the upper Coastal Plain. Common in open woodlands and urban areas.

Marmota monax monax (Linnaeus), Woodchuck. This species reaches the southern limit of its range in north Georgia, where it is known from few and generally scattered localities in the mountains, south to Cherokee and Barrow counties. It occurs in woodlands, uncultivated fields, and roadside habitats.

Sciurus carolinensis carolinensis (Gmelin), Gray Squirrel. This is the most common squirrel in Georgia, where it occurs statewide in a variety of habitats.

Sciurus niger Linnaeus, Fox Squirrel. Although statewide in distribution, this squirrel is generally least abundant in the upper Piedmont and mountains. It may be locally abundant. Hall (1981) and Golley (1962) suggested that two subspecies—S.n. bachmani Lowery and Davis,

and S.n. shermani Moore—occur in the extreme northwestern and extreme southeastern parts of the state, respectively. However, since specimens from localities in those regions cannot with certainty be assigned to those subspecies, we refer all Georgia specimens to S.n. niger Linnaeus. Laerm is studying the taxonomic status of the subspecies in the state. Sciurus n. rufiventer Geoffroy St. Hilaire was introduced to Ossabaw Island in the 1920s (J. Jenkins, pers. comm.; Hilliard 1979) and is apparently well established there.

Tamiasciurus hudsonicus abeiticola (Howell), Red Squirrel. Reaches the southern limit of its range in extreme northeastern Georgia, where it is only locally common (Wharton 1968b) in coniferous or mixed coniferous forests (Howell 1929; Odum 1949) of White, Habersham, Towns, and Rabun counties.

Glaucomys volans (Linnaeus), Southern Flying Squirrel. This squirrel is statewide, but uncommon to locally abundant in a variety of habitats in mixed pine-hardwood forests. Two subspecies are recognized in Georgia (Dolan and Carter 1977): Glaucomys volans querceti (Bangs) is restricted to the southeastern counties, and G. v. saturatus Howell occurs throughout most of the rest of the state.

Geomys pinetis Rafinesque, Southeastern Pocket Gopher. This species occurs in the Sand Hills region south of the Fall Line, between Columbus and Augusta. It is common in a variety of Sand Hill habitats, principally along well drained roadsides. Four species (G. colonus, G. cumberlandius, G. fontanelus, and G. pinetis) were previously recognized in Georgia, but recent studies (Williams and Genoways 1980; Laerm 1981; Laerm et al., in press) have shown that the Geomys complex is represented in the state by a single species, G. pinetis. Two subspecies are recognized: Geomys pinetis pinetis Rafinesque occurs statewide south of the Fall Line, and G. p. fontanelus Sherman is known only from its type locality, seven miles northwest of Savannah. Extensive surveys by the authors failed to locate G. p. fontanelus, and we believe it is extinct.

Castor canadensis carolinensis Rhoads, Beaver. An important statewide fur bearer in Georgia, the beaver is common in a variety of freshwater aquatic habitats. It is less common in sandy soils of the lower Coastal Plain and the Ridge and Valley province.

Oryzomys palustris palustris (Harlan), Marsh Rice Rat. Statewide and locally abundant in salt and freshwater marshes.

Reithrodontomys humulis humulis (Audubon and Bachman), Eastern Harvest Mouse. Occurs widely throughout the Southeast, but only a few scattered locality records are available for Georgia; distribution is probably statewide. The species may be locally abundant in old-fields, thickets, and meadows.

Peromyscus maniculatus nubiterrae Rhoads, Deer Mouse. This very common species reaches the southern limit of its range in Georgia, where it is found in the Blue Ridge Province and extreme northeastern Piedmont, south into Lumpkin, White, and Hall counties. It occurs at higher elevations, generally over 850 m (2800 ft) in mesic hardwood forest.

Peromyscus polionotus (Wagner), Oldfield Mouse. A very common mammal of the Piedmont and Coastal Plain. Taxonomic distinctions of the three recognized subspecies that occur in Georgia (Hall 1981) are poorly defined, but they include: Peromyscus polionotus polionotus (Wagner), south of the Fall Line; P. p. colemani Schwartz, north of the Fall Line; and P. p. subgriseus (Chapman), in the extreme southwestern and south central counties.

Peromyscus leucopus leucopus (Rafinesque), White-footed Mouse. Very common in a variety of woodland habitats north of the Fall Line.

Peromyscus gossypinus (LeConte), Cotton Mouse. This mouse, the largest Peromyscus in Georgia, is common in a variety of habitats below the Fall Line. There are also isolated records from the extreme eastern Piedmont counties, and the Appalachian Valley. Three subspecies are recognized in Georgia (Hall 1981): Peromyscus gossypinus gossypinus (LeConte) inhabits mainland Georgia southeast of a line between Columbus and the extreme northeastern part of the state; P. g. anastasae Bangs is known only from Cumberland and Little Cumberland islands (Neuhauser 1978), but the subspecific affinities of the coastal island populations are suspect and currently under review by Laerm; and P. g. megacephalus (Rhoads) inhabits mainland Georgia northwest of a line between Columbus and the extreme northeastern part of the state.

Ochrotomys nuttalli (Harlan), Golden Mouse. This statewide species is generally restricted to woodland habitats, where it is common. Two subspecies are recognized in Georgia (Hall 1981): Ochrotomys nuttalli nuttalli (Harlan) inhabits the Piedmont and Coastal Plain, and O. n. aureolus (Audubon and Bachman) the Cumberland Plateau, Ridge and Valley, and Blue Ridge provinces.

Sigmodon hispidus Say and Ord, Hispid Cotton Rat. A statewide species that is very abundant in open fields and along roadsides. Two subspecies are recognized in Georgia (Hall 1981): Sigmodon hispidus hispidus Say and Ord occurs in the extreme southeastern counties, and S. h. komareki Gardner throughout the remainder of the state.

Neotoma floridana (Ord), Eastern Woodrat. Although widely distributed almost statewide, and fairly common throughout a variety of woodland habitats, there are o records from the Piedmont Plateau. Three subspecies are recognized in Georgia (Wiley 1980): Neotoma floridana floridana (Ord) occurs in the Coastal Plain; N. f. haemotoreia

Howell in the Blue Ridge and Appalachian provinces; and N. f. illinoensis Howell on the lookout Plateau. We follow Schwartz and Odum (1957) in recognizing N. f. illinoensis as the subspecies occurring in Dade County.

Clethrionomys gapperi carolinensis (Merriam), Southern Redbacked Vole. Reaches the southern limit of its range in north Georgia, where it occurs only rarely in mesic hardwood habitats, generally above 610 m (2000 ft), in Union, Town, and Rabun counties.

Microtus pennsylvanicus pennsylvanicus (Ord), Meadow Vole. A rare species in north Georgia, where it reaches the southern limit of its range. It is found in the upper Piedmont, Blue Ridge, and Appalachian provinces.

Microtus pinetorum (LeConte), Woodland Vole. A semi-fossorial mouse found statewide except in the extreme southeastern counties. It is most common in wooded areas, but may be locally abundant in old-fields and orchards. Three subspecies are recognized in Georgia (Smolen 1981; Hall 1981): Microtus pinetorum pinetorum (LeConte) occurs throughout the Piedmont and the upper Coastal Plain; M. p. auricularis (Bailey) occurs in the Ridge, Valley, and Lookout provinces; and M. p. parvulus (Howell) occurs in the extreme south central counties.

Neofiber alleni exoristus Schwartz, Round-tailed Muskrat. This species occurs in the Okefenokee Swamp and surrounding areas of Camden, Charlton, and Ware counties, but is common only in the prairie habitat of the Okefenokee swamp.

Ondatra zibethicus zibethicus (Linnaeus), Muskrat. Statewide north of the Fall Line, and locally abundant in appropriate aquatic habitats.

Rattus rattus (Linnaeus), Black Rat. An introduced, statewide species, most common on the lower Coastal Plain.

Rattus norvegicus (Berkenhout), Norway Rat. An introduced, statewide species, common in association with human habitations, dumps, and similar places, although it also occurs in a variety of natural habitats.

Mus musculus (Linnaeus), House Mouse. An introduced, statewide species, most frequently found in association with human habitations but also known from a variety of natural habitats.

Zapus hudsonius americanus (Barton), Meadow Jumping Mouse. A rare species in Georgia, where it is at the southern limit of its range, and known only from widely scattered locations in the Piedmont, Blue Ridge, and Appalachian provinces. It is generally restricted to moist meadows.

Napaeozapus insignis roanensis (Preble), Woodland Jumping Mouse. Rare in Georgia, where it is at the southern limit of its range and occurs in the extreme northern counties. It generally occurs at ele-

vations over 730 m (2400 ft) in cool, moist woodland habitats.

Myocastor coypus bonairiensis (Geoffroy St. Hilaire), Nutria. Distribution in Georgia of this introduced species is poorly known, but it appears restricted to swampy habitats in the south central counties. It is known from Thomas, Brooks, Colquitt and Lowndes counties, and the region of the Chattahoochee River north to Fort Gordon (J. Jenkins, pers. comm.).

Mesoplodon densirostris (Blainville), Tropical Beaked Whale. A single stranding record is known from Cumberland Island (Neuhauser and Ruckdeschel 1978).

Mesoplodon europaeus (Gervais), Gervais' Beaked Whale. Known from a single stranding on Ossabaw Island (Neuhauser and Ruckdeschel 1978).

Ziphius cavirostris (Cuvier), Goose-beaked Whale. Neuhauser and Ruckdeschel (1978) reported six stranding records for this species.

Kogia breviceps (Blainville), Pygmy Sperm Whale. Neuhauser and Ruckdeschel (1978) reported 24 stranding events in Georgia.

Kogia simus (Owen), Dwarf Sperm Whale. Known from eight stranding events on Ossabaw, Cumberland and Little Cumberland Islands (Neuhauser and Ruckdeschel 1978) and from Wassaw Island.

Stenella plagiodon (Cope), Atlantic Spotted Dolphin. This species is known only from sightings offshore.

Steno bredanensis (Lesson), Rough-toothed Dolphin. One stranding event involving two animals is known from Little Cumberland Island (Richardson 1973).

Tursiops truncatus (Montague), Bottle-nosed dolphin. Neuhauser and Ruckdeschel (1978) reported 41 stranding events in Georgia.

Pseudorca crassidens (Owen), False Killer Whale. Known from a single stranding record on Tybee Island (Caldwell and Golley 1965).

Globicephala macrorhynchus (Gray), Short-finned Pilot Whale. Neuhauser and Ruckdeschel (1978) reported 17 stranding events on the Georgia coast.

Balaenoptera edeni Anderso, Bryde's Whale. A 1978 stranding in Chatham County represented the first record of this species for Georgia (Neuhauser and Ruckdeschel 1978).

Megaptera novaeangliae (Borowski), Hump-backed Whale. A single stranding record on Sapelo Island is recorded (Neuhauser and Baker 1974). Neuhauser and Ruckdeschel (1978) suggested that the hump-backed whale may inhabit Georgia's coastal waters more frequently than stranding records indicate.

Balaena glacialis (Borowski), Black Right Whale. Three stranding records are known, one from "near Savannah" (Neuhauser and Ruckdeschel 1978), one from Little St. Simons Island, and one from Ossabaw

Island. Transients are occasionally observed offshore (Odom et al. 1977).

Canis latrans Woodhouse, Coyote. Wild canids predominantly occur in the western half of the state. It is a matter of conjecture whether they are coyotes introduced by sportsmen as suggested by Golley (1962), or whether they represent the eastern extension of a hybrid swarm of coyote and red wolf (C. rufus) as indirectly suggested by Paradiso and Nowak (1971). Identifications are further complicated by interbreeding with domestic dogs, C. familiaris.

Vulpes vulpes fulva (Desmarest), Red Fox. The red fox occurs statewide, but mostly north of the Fall Line, although it is known from widely scattered locations throughout the Coastal Plain. It usually prefers open habitat.

Urocyon cinereoargenteus (Schreber), Gray Fox. The gray fox is more common in Georgia than the red fox and is statewide. It is known from a variety of open and woodland habitats. Two subspecies are recognized in Georgia (Hall 1981): Urocyon cinereoargenteus cinereoargenteus (Schreber) occurs in the northern part of the state, south to the central Piedmont, and U. c. floridanus Rhoads occurs in the southern part of the state.

Ursus americanus Pallas, Black Bear. Statewide, but uncommon and generally restricted to wooded habitat in remote mountainous regions, the Ocmulgee River area, and the Okefenokee Swamp. Two subspecies are recognized in Georgia (Hall 1981): Ursus americanus americanus Pallas is primarily restricted to the mountains, although there are a few scattered locality records from the Piedmont and upper Coastal Plain (Jenkins 1953); and U. a. floridanus Merriam has its largest concentrations in the Okefenokee Swamp, with smaller populations in the Ocmulgee River region.

Procyon lotor (Linnaeus), Raccoon. Very common in a wide variety of habitats statewide. Four subspecies are recognized in Georgia (Hall 1981): Procyon lotor elucus Bangs occurs in the extreme southern tier of counties, including Okefenokee Swamp; P. l. litoreus Nelson and Goldman occurs in the eastern part of the lower Coastal Plain; P. l. solutus Nelson and Goldman occurs in the tier of counties adjacent to South Carolina; and P. l. varius Nelson and Goldman occurs in the upper Coastal Plain, and north throughout the state.

Mustela frenata Lichtenstein, Long-tailed Weasel. Statewide, generally in brushland and fields. Two subspecies are recognized in Georgia (Hall 1981): Mustela frenata noveboracensis (Emmons) occurs in the northern Piedmont and mountain provinces, and M. f. olivacea Howell in the southern Piedmont and Coastal Plain.

Mustela vison Schreber, Mink. Statewide, and generally distributed

around freshwater streams and fresh and salt water marshes. Two subspecies are recognized in Georgia (Hall 1981): Mustela vison lutensis (Bangs) in the Coastal counties, and M. v. mink Peale and Palisot de Beauvois in the remainder of the state

Spilogale putorius putorius (Linnaeus), Eastern Spotted Skunk. Statewide, except in the lower Coastal Plain, and uncommon. Distributed around farmlands and rarely occurs in woodlands.

Mephitis mephitis (Schreber), Striped Skunk. The more common skunk in Georgia, occurring statewide and usually around farmlands, less commonly in woodlands. Two subspecies are recognized in Georgia (Hall 1981): Mephitis mephitis elongata Bangs occurs in the northeastern, eastern and southern parts of the state, and M. m. nigra (Peale and Palisot de Beauvois) in the northwestern and west central parts.

Lutra canadensis lataxina Cuvier, River Otter. Fairly common in rivers and streams, as well as fresh and salt water marshes of the Coastal Plain and lower Piedmont.

Zalophus californianus (Lesson), California Sea Lion. Accidentally or intentionally released into waters of the southeastern United States, this species is reported from offshore Georgia, east of McIntosh County (Caldwell et al. 1971).

Cystophora cristata (Erxleben), Hooded Seal. Neuhauser and Ruckdeschel (1978) reported on an unpublished note by Ivan Tompkins of a specimen from Bullhead Bluff on the Satilla River, Camden County, that was tentatively identified as C. cristata. There are no recent sightings of the species in southeastern United States waters (Schmidly 1981), and the species is presumed extirpated from this area.

Felis concolor coryi Bangs, Mountain Lion. Jenkins (1971) and Odum et al. (1977) reported recent unconfirmed sightings in Georgia. These are, however, very suspect, and it is very likely that the species has been extirpated in Georgia.

Felis rufus (Schreber), Bobcat. A common but secretive animal statewide in river-bottom swamps, brush and thickets. Two subspecies are recognized in Georgia (Hall 1981): Felis rufus rufus (Schreber) occurs in the mountain provinces; and F. r. floridanus (Rafinesque) in the Piedmont and Coastal Plain.

Trichechus manatus latirostris (Harlan), Manatee. Occurs occasionally in Georgia's coastal waters, most commonly south of the Altamaha River, especially during warmer weather.

Sus scrofa, Feral Pig. Feral pigs occur in the lower Coastal Plain and mountain provinces, and are most common in coastal swamps and marshes, less common in boreal habitats.

Cervus dama Linnaeus, Fallow Deer. Originally introduced for hunting, this species is locally abundant in Glynn County (Neuhauser and Baker 1974).

Odocoileus virginianus (Zimmerman), White-tailed Deer. Common in a wide variety of wooded habitats statewide. Three subspecies are recognized as occurring in Georgia (Hall 1981). However, the near extirpation of deer by the later 1800s (Jenkins 1953), and subsequent restocking and interbreeding of individuals from various parts of the species' range, make subspecific distinction unreliable. We can find no records of recent introductions of deer onto Blackbeard Island, the type locality for O. v. nigribarbis (Goldman and Kellogg). This subspecies would appear to be the only recognizably distinct subspecies of deer occurring in Georgia.

## DISCUSSION

We recognize here 90 species and 118 subspecies of mammals occurring in Georgia and its coastal waters. Of these, 74 species are non-marine and 16 are marine. Not included in this list are four species that recently ranged into Georgia but have been extirpated—Canis rufus (Red Wolf), Canis lupus (Gray Wolf), Cervus elaphus (Elk), and Bison bison (Bison). Three species and one subspecies listed herein are believed extirpated from Georgia. They are Sylvilagus transitionalis (New England Cottontail), Geomys pinetis fontanelus (Sherman's Pocket gopher), Cystophora cristata (Hooded Seal), and Felis concolor (Mountain Lion).

The non-game mammals of Georgia are poorly known. At present only very approximate distributional ranges for most species are available. Certain areas of the state, such as Okefenokee Swamp, the extreme northeastern counties, and the area immediately surrounding Athens, Clarke County, and the barrier islands, have received considerable attention, yet most parts of the state have not. There are glaring gaps in the known ranges of even the most common forms (e.g., Peromyscus). Many of the older collection records for several species (e.g., Sylvilagus transitionalis and Cystophora cristata) probably do not reflect current ranges. A large number of species listed above are known from a single, or at best a few, records (e.g., several marine mammals, Sorex cinereus, and Microsorex hovi). Most of these species occur in Georgia at the extreme periphery of their natural ranges. Several species (e.g., Sorex dispar, Synaptomys cooperi, and Phoca vitulina) have known distributional ranges that very closely approach Georgia and appropriate habitat for them appears to exist in the state. They may well occur in Georgia, but as yet there are no records.

There are a significant number of taxonomic problems (see above), particularly with respect to characterization of subspecies. Attention to these problems is crucial in our attempts to assess the status of Georgia's mammal fauna (see Laerm et al., in press b). We hope that this checklist may provide students of mammalogy a background for further study.

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